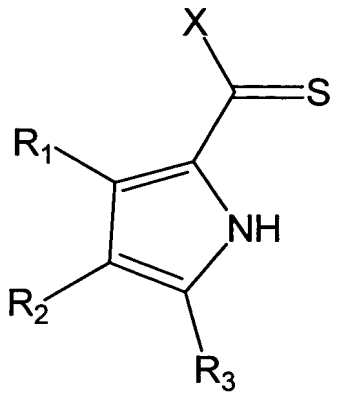
We claim:

1. A diagnostic imaging or therapeutic agent precursor having the formula:



wherein

each of R_1, R_2, and R_3 is independently hydrogen, alkyl, OH or its derivative, halogen, NO_2, NH_2, N^+R_3, NHCOR, CN, an alkyl carboxylic acid or acid ester group or its derivative, keto, SO_3H or its derivative, or a group that, when taken together with another ring, ring substituent, forms a fused 5 or 6 membered ring, wherein R is independently hydrogen, alkyl, OH or its derivative, halogen, CN, an alkyl carboxylic acid or acid ester group or its derivative, keto, or SO_3H or its derivative;

X is independently selected from the group consisting of unsubstituted or substituted alkyl or heteroalkyl, unsubstituted or substituted carbocycle, including aryl, unsubstituted or substituted heterocycle, AOH, ACOOH, ACOOR, AHal, CN, ANO_2, ANH_2, ANR_2, AN^+R_3, and ANHCOR wherein A is alkyl, heteroalkyl, carbocycle, including aryl or heterocycle, and

R is alkyl or aryl and Hal is a halogen, preferably F, Cl, Br, or I.

2. The agent of claim 1 wherein R_3 is SO_3H or the salt thereof.

3. The agent of claim 2 wherein said salt is Na.

4. The agent of claim 1 wherein X is a pyrrole group.

5. The agent of claim 1 wherein X is a substituted or unsubstituted phenyl group.

6. The agent of claim 5 wherein X is a carboxymethyl substituted phenyl group.

7. The agent of claim 1 wherein said carbocycle is aryl or heterocycle.

8. The agent of claim 1 wherein Hal is F, Cl, Br, or I.

9. A composition comprising an agent of claim 1.

10. A method comprising sulfonating an agent of claim 1 with 1,4-dioxane-sulfotrioxide in the presence of 1,4-dioxane as solvent.

11. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 1.

12. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 2.

13. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 3.

14. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 4.

15. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 5.

16. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 6.

17. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 7.

18. A method of inhibiting a metalloenzyme or chelating a metal comprising contacting said metalloenzyme or metal with an agent according to claim 8.

19. The method of claim 11 wherein said metal is selected from Tc, Re, Cd, Pb, Zn, Ag, Au, Ga, Pt, Pd, Rh, Cr, Cu, V.